



QUALIFICATION REPORT SUMMARY

PCN #: MFOL-28MZQR026

**Date:
January 16, 2026**

**Qualification of UNIG as a new assembly site for
MIC2800-G1JJYML-TR-GM catalog part number (CPN) available in
16L VQFN (3x3x0.90mm) package.**

Purpose: Qualification of UNIG as a new assembly site for MIC2800-G1JJYML-TR-GM catalog part number (CPN) available in 16L VQFN (3x3x0.90mm) package.

I. Summary:

The purpose of this qualification is to evaluate Reliability performance COL (Chip on lead) package at Unisem Gopeng per CCB 7032, following guidelines established in Microchip specification QCI-39000, "Worldwide Quality Conformance Requirements".

Conclusion:

Based on successful Reliability stress results on test device MIC2800-G1JJYML-TR assembled in 16-lead VQFN, COL (Chip on lead) package at Unisem Gopeng is qualified for production as per guidelines established in Microchip specification QCI-39000, "Worldwide Quality Conformance Requirements".

II. Device Description:

Device	MIC2800-G1JJYML-TR
Product	Digital Power Management 2 MHz, 600 mA DC/DC with Dual Low VIN LDOs
Document Control Number	ML0220267986
Document Revision	A
CCB No.	7032

III. Package Qualification Material:

Test Lot	Lot 1	Lot 2	Lot 3
WAFER LOT	TMPE224275707.120	TMPE224275707.120	TMPE224275707.120
ASSEMBLY LOT	UNIG254800005.000	UNIG254800006.000	UNIG254800007.000
PACKAGE	16-lead VQFN 3x3x0.90mm	16-lead VQFN 3x3x0.90mm	16-lead VQFN 3x3x0.90mm
QUAL TESTS	HTSL, MSL 2, HAST, UHAST, TC	MSL2, HAST, UHAST, TC	MSL2, HAST, UHAST, TC

IV. Package BOM

Misc.	Assembly site	UNIG
	BD Number	A-062015
	MP Code (MPC)	22837YN8AVGM
	Part Number (CPN)	MIC2800-G1JJYML-TR-GM
	MSL information	MSL 2, 260°C
	Assembly Shipping Media (T/R, Tube/Tray)	T&R
	Base Quantity Multiple (BQM)	5000
	Reliability Site	MSJO
Lead-Frame	Material	A194FH
	Treatment	No
	Process	Etching
	Lead-lock	Yes
	Part Number	40000469
	Lead Plating	NiPdAu
	Strip Size	70 X 250 mm
	Strip Density	960
Bond Wire	Material	Au
Die Attach	Part Number	8006NS
	Conductive	No
MC	Part Number	G770HCD
PKG	Package Type	VQFN
	Pin/Ball Count	16
	PKG width/size	3x3x0.9mm

V. Qualification Data:

a. High Temperature Storage Life

Test Method/Condition	JESD22-A103, Ta = +150 °C, 1000 hrs
Sample Requirement	1 lot, minimum sample size = 45 units/lot.
Test Material	Lot 1
ATE Result (fail/sample size)	0/50
Result	Passed

Pre and Post testing was conducted at +25°C

b. Package Preconditioning:

Test Method/Condition	JEDEC J-STD-020 and JESD22-A113, MSL Level 2 soak at +85°C/60%RH/168hrs, 3x at 260°C peak Reflow Temperature		
Sample Requirement	3 lots, minimum sample size = 231 units/lot.		
Test Material	Lot 1	Lot 2	Lot 3
ATE Result (fail/sample size)	0/255	0/255	0/255
Result	Passed	Passed	Passed

Pre and Post testing was conducted at +25°C

c. HAST post MSL2 Preconditioning.

Test Method/Condition	JESD22-A110, Ta = +130°C/85%RH, 96 hrs, Vin= 5.5V		
Sample Requirement	3 lots, minimum sample size = 77 units/lot.		
Test Material	Lot 1	Lot 2	Lot 3
ATE Result (fail/sample size)	0/82	0/81	0/82
Result	Passed	Passed	Passed

Pre and Post testing was conducted at +25°C

d. Unbiased HAST post MSL2 Preconditioning.

Test Method/Condition	JESD22-A118, Ta = +130°C/85%RH, 96hrs.		
Sample Requirement	3 lots, minimum sample size = 77 units/lot.		
Test Material	Lot 1	Lot 2	Lot 3
ATE Result (fail/sample size)	0/82	0/80	0/80
Result	Passed	Passed	Passed

Pre and Post testing was conducted at +25°C

e. Temperature Cycling post MSL2 Preconditioning

Test Method/Condition	JESD22-A104, Ta = -55°C/150 °C, 1000 cycles.
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Sample Requirement	3 lots, minimum sample size = 77 units/lot.		
Test Material	Lot 1	Lot 2	Lot 3
ATE Result (fail/sample size)	0/82	0/80	0/81
Result	Passed	Passed	Passed

Pre and Post testing was conducted at +25°C

f. Post TCY Bond Pull

Result: Passed

g. Post Temperature Cycle

Result: Passed

VI. Assembly Data

a. Solderability

Result: Passed

b. Physical Dimension

Result: Passed

c. Wire Bond Pull / Shear

Result: Passed